Report Date: 26 Sep 2014

# Summary Report for Individual Task 052-247-1326 Stabilize Vehicles and Machinery

Status: Approved

**Distribution Restriction:** Approved for public release; distribution is unlimited.

**Destruction Notice: None** 

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the Ft Leonard Wood MO/MSCOE foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

**Condition:** You are a member of an Urban Search and Rescue (US&R) team given a vehicle or machinery incident, cribbing material, step chocks, high pressure air bag system, webbing, ropes, and chains. This task should not be trained in MOPP 4.

**Standard:** Stabilize the vehicle(s) and machinery ensuring they will not move during the rescue operation and that entry, exit, and tool placement points are not compromised. Ensure selected stabilization points are structurally sound, and that stabilization equipment can be monitored so that risks to rescuers and victims is minimized.

Special Condition: None

Safety Risk: Medium

MOPP 4: Never

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION

None

Remarks: All required references and technical manuals will be provided by the local US&R command.

Notes: None

## **Performance Steps**

- 1. Size up the scene. (See task 052-247-3101)
  - a. Determine the vehicle's/machinery's orientation and determine the need for stabilization.
  - b. Determine the vehicle's/machinery's construction, condition and integrity.
  - c. Identify support locations on the vehicle(s)/machinery.
- 2. Neutralize the vehicle's/machinery's power source. (See task 052-247-1230)
- 3. Mitigate any leaking fluids. (See task 052-249-2123)
- 4. Stabilize using step chocks.
  - a. Position the step chocks at support locations.

Note: It may be necessary to build crib beds prior to placing step chocks under support locations due to the vehicle's height.



Figure 052-247-1326-1 Step Chocks

- (1) Slide the step chock into position under vehicle until it makes solid contact with the vehicle's support point.
- (2) Repeat the process until at least four step chocks are under the vehicle at the support locations.

# **WARNING**

Do not deflate any tire mounted on a split rim, nor deflate any tire before adequate cribbing has been installed to support the vehicles weight.

- b. Deflate the tires until the weight of the vehicle/machine is resting on the chocks.

  Note: Deflate the tires in accordance with the unit's standard operating guidelines.
- 5. Stabilize using cribbing, wedges, and shims.
  - a. Position sufficient cribbing material at each support location.
  - b. Construct a crib base. (See task 052-247-1225)
  - c. Add additional crib layers as needed.
  - d. Utilize wedges and shims as needed.
  - e. Evaluate and maintain the integrity of the cribbing.
- 6. Stabilize using air bags. (See tasks 052-247-1226)

Note: When using two bags for height, place the larger one on the bottom. Always inflate the bottom bag first. Do not stack more than two bags high.

- a. Place a piece of plywood or mat material where the air bag will be positioned.
- b. Position the air bag(s) at the support location(s) on top of plywood or mat material.
- c. Pressurize the bag(s) slowly and evenly until they come in contact with the vehicle/machine. Note: Inflate the bag slowly to minimize the chance of the load shifting.
- d. Place support cribbing under the vehicle/machinery next to the air bag(s). (See task 052-247-1225)

Note: Place support cribbing a minimum of eight inches from the airbag platform because of the increased space needed when inflated.

- e. Evaluate and maintain the integrity of the cribbing.
- 7. Stabilize using webbing, ropes, and chains.
  - a. Attach webbing, ropes, or chains to the vehicle's/machinery anchor points.

Note: If adequate resources are available, build box cribs consisting of three blocks per layer for vehicle/machinery stabilization.

- b. Secure the webbing, ropes, or chains to anchor points.
- c. Remove slack from the webbing, ropes, or chains.
- d. Evaluate and maintain the tension of the stabilization equipment used.

(Asterisks indicates a leader performance step.)

**Evaluation Guidance:** Score the Soldier GO if all measures are passed (P). Score the Soldier NO- GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

**Evaluation Preparation:** Provide the Soldier with all the items listed in the conditions.

Brief Soldier: Tell the Soldier to Stabilize Vehicle(s) and Machinery.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Sized up the scene. (See task 052-247-3101)			
2. Neutralized the vehicle(s)/machinery power source. (See task 052-247-1230)			
3. Mitigated any leaking fluids. (See task 052-249-2123)			
4. Stabilized using step chocks.			
5. Stabilized using cribbing, wedges, and shims.			
6. Stabilized using air bags. (See tasks 052-247-1226)			
7. Stabilized using webbing, ropes and chains.			

## Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ISBN-10: 1449648827	Vehicle Extrication: Levels I & II: Principles And Practice	No	No
	NFPA 1006	Standard for Rescue Technician Professional Qualifications	Yes	Yes

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

#### Prerequisite Individual Tasks: None

## **Supporting Individual Tasks:**

Task Number	Title	Proponent	Status
052-247-1225	Construct Cribbing System(s) to Stabilize a Load	052 - Engineer (Individual)	Analysis
052-247-1226	Conduct Lifting Operations for a Structural Collapse	052 - Engineer (Individual)	Approved
052-247-3101	Perform a Size Up of an Urban Search and Rescue Incident	052 - Engineer (Individual)	Approved
052-247-1230	Neutralize Power Sources and Other Hazards for a Vehicle or Machinery Incident	052 - Engineer (Individual)	Analysis

### **Supported Individual Tasks:**

Task Number	Title	Proponent	Status
		052 - Engineer (Individual)	Analysis
	for Light Vehicles and Small Machinery		

052-247-1225	Construct Cribbing System(s) to Stabilize a Load	052 - Engineer (Individual)	Analysis
052-247-1230	Neutralize Power Sources and Other Hazards for a Vehicle or Machinery Incident	052 - Engineer (Individual)	Analysis

Supported Collective Tasks: None